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UTAUT2 and Nonjudgmental Expectancy (NE) Model Insights into ChatGPT Adoption among College Students for Academic Use

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ABSTRACT

Acceptability and adoption of digital technology are rapidly expanding throughout several fields of knowledge. Education as one of the fields that has undergone a significant transformation in adopting various technologies that affect the process of learning, teaching and managing educating as a whole. One of the new technologies that dominates at this time is ChatGPT (as example of artificial intelligence), which is widely adopted by students. The purpose of this study is to understand how students utilize and use ChatGPT technology for their academic needs. Researchers used the UTAUT 2 model with the addition of the Nonjudgmental Expectancy (NE) variable as an additional variable to predict Behavioral Intention (BI) in adopting ChatGPT. This research method uses the surveillance technique in a questionnaire format to 54 undergraduate, postgraduate and doctoral student respondents as a non-probability sample of 101 students with a total of all respondents. Research data is processed using SPSS in order to conduct multiple regression analysis and determine the extent to which six variables influence Behavioral Intention (BI). The study results reveal that all variables in the UTAUT model simultaneously have an effect of 69.0%. Nonjudgmental Expectancy (NE) has no significant influence on Behavioral Intention (BI). In contrast, the Performance Expectancy (PE) and Habit (H) variables have a significant influence. Insight into the influence of the variables in the UTAUT 2 model can be a motivation in the development and acceptance of new technologies for example ChatGPT..

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1. INTRODUCTION

The development of Information and Computer Technology (ICT) is currently in the digital era that began around the end of the 20th century. Digital technology already uses numerical representations to store, transmit, and process information. Data transformation in this technology can facilitate the processing of raw data into digital formats through computer network connectivity and the internet and other electronic device support; thus

enabling global information exchange to be fast and efficient. Digital technology also has a major influence on the pattern of people's lives. Changes in the way people communicate, work, learn, interact globally, and the variety of technological innovations today show that the use of digital technology is growing rapidly. Some of the fields that are experiencing the impact of the use of digital technology include communication, education, industry and business, health, transportation and the environment.

Education is one of the fields that has undergone significant transformation in adopting various technologies that affect learning, teaching and education management as a whole. Although the learning process still uses simple technology in supporting hands-on learning experiences; educators and learners must face challenges in accepting new technological developments. One new technology that dominates today is artificial intelligence (AI). AI technology is a computer system that can demonstrate capabilities that resemble human intelligence. This technology includes the use of mathematical models and algorithms to enable computers and other systems to learn from data, recognise patterns, and make intelligent decisions (Eriana and Zein, 2023). Some of the latest research on the use of AI is that it can be used in education to facilitate personalised and adaptive learning. The application of AI also aims to increase the efficiency and effectiveness of the learning process (Galantry & Tanaamah, 2000). The application of AI can be used for big data analysis to understand and identify patterns in social and environmental issues to predict trends that can support good policy implementation (Pongtambing, et al, 2023).

One of the Artificial Intelligence (AI) technologies that has established a lot of public attention today is ChatGPT. ChatGPT uses Generative Pre-trained Transformer (GPT) technology that is designed in a system to analyse various sources, including books, articles, and websites; so that it has a broad understanding of human language, and can generate responsive text. ChatGPT is also designed using Natural Language Processing (NLP) which allows it to replicate human conversation (Marlin, et al., 2023). Through ChatGPT, users can have a discussion by entering a keyword, which is then translated by the system into an answer. ChatGPT is becoming one of the popular alternative technologies with the advantage of providing information according to the user's wishes. Based on research surveys to students and college students; ChatGPT users are mostly in the age of 21-30 years and are respondents at the college education level (students). The amount of interest in ChatGPT allows the benefits obtained by users to overcome obstacles in understanding the material, the learning process, and help in completing daily tasks.

The use of ChatGPT provides benefits and opportunities for ease of obtaining information in the field of education, both from the primary school, secondary and high school, college and professional education levels; such as students and lecturers. The use of ChatGPT in the context of ethics education and student competence in higher education opens up innovative opportunities in the learning process (Marlin, et al., 2023). However, every technology is not free from negative impacts. Challenges and risks such as readiness to use new technology, dependence, misuse, and security and privacy issues in accepting generative AI technology can be a problem in its use (Liliana, et al., 2023). Therefore, the success of a new technology as a system can be analysed and evaluated whether the

technology is acceptable and meets the needs of users. Some methods for evaluating the acceptance of a system are TAM (Technological Acceptance Model) and UTAUT (Unified Theory of Accepted And Use of Technology) (Hadi and Alfarobi, 2023).

The Unified Theory of Acceptance and Use of Technology (UTAUT) is a theory that can be used through research; to classify and predict various constructs that affect user adoption of new systems (Yong et al., 2021). Venkatesh et al (2003) state that to explain the adoption of new technologies, the UTAUT model combines eight theoretical models drawn from sociology and psychology theories. The model of UTAUT initially had 4 (four) main constructs that could be measured and observed, namely: Effort Expectancy (EE), Performance Expectancy (PE), Facilitating Conditions (FC), and Social Influence (SI). The model also has four types of moderators, namely age, gender, experience, and voluntariness. Referring to the UTAUT model theory, the constructs of Effort Expectancy (EE), Performance Expectancy (PE), Facilitating Conditions (FC) and Social Influence (SI) influence Behavioral Intention (BI) as a predictive variable of technology acceptance. Instead, behavioral intentions (BI) as well as facilitating conditions (FC) can determine the use of technological systems (use behavior).

The development and refinement of UTAUT theory into UTAUT 2 in a study conducted by Thong, Venkatesh and Xu (2012) stated that there are 3 other constructs that can affect technology acceptance or Behavioural Intention (BI), namely Hedonic Motivation (HM), Habit (H) and Price Value (PV) while the use of technology systems (usage behavioural) can be established by Facilitating Conditions (FC) and Habit (H). The level of acceptability and use of new AI technologies is largely adopted by students in higher education institutions, is still being researched based on its constructs and influencing factors. In Slepankova's research (2023), a new construct was proposed to predict behavioural intention in the use of AI applications in the education sector. The construct is Non-Judgmental Expectancy (NE), which significantly predicts the intention to use AI chatbot technology unintentionally for education only. Non-Judgmental Expectancy (NE) indicates the distance to which an individual feels that applying a system can remove their personal judgments and prejudices, so that one can have reasons and suggestions as alternative solutions in using AI as needed.

This research purpose to determine the acceptability and use of ChatGPT technology among students for academic purposes. Researchers use the UTAUT 2 model with the addition of the Nonjudgmental Expectancy (NE) variable as a construct that can predict students' behavioural intentions in adopting ChatGPT; so it is expected that this study can deliver greater insight in supporting the use of ChatGPT applications that are more useful according to academic needs. The constructs or factors as independent variables of the study are Effort Expectancy-EE (X1), Performance Expectancy-PE (X2), Habit-H (X3), Facilitating Conditions-FC (X4), Hedonic Motivation-HM (X5), and NonJudgmental Expectancy-NE (X6) as new constructs under study. Each of these variables will be tested

for its relationship and tested how it affects the dependent variable, namely Behavioural Intention-BI (Y). The hypotheses tested in this study are:

H1: The Effort Expectancy-EE (X1) variable has a significant impact on the Behavioral Intention (Y) variable..

H2: The Performance Expectancy-PE (X2) variable has a significant impact on the Behavioral Intention (Y) variable.

H3: The variable Habit-H (X3) has a significant impact on the variable Behavioural Intention (Y).

H4: The variable Facilitating Conditions—FC (X4) has a significant impact on the variable Behavioural Intention (Y).

H5: The variable Hedonic Motivation-HM (X5) has a significant impact on the variable Behavioural Intention (Y).

H6: The variable Non-Judgmental Expectancy-NE (X6) has a significant impact on the variable Behavioural Intention (Y).

H7: All of the factors (X1, X2, X3, X4, X5, and X6) have a simultaneous impact on the variable Behavioural Intention (Y).

2. RESEARCH METHODS

This research applies quantitative methods with primary data obtained through survey techniques (Rulandi and Tambotoh, 2023). The technique of sampling used purposive sampling and non-probability sampling techniques. The total respondents were 101 students with various demographic profiles and came from Jakarta and Bogor areas. The subjects used in this research were students, so that with certain considerations 54 respondents were used, who were undergraduate, postgraduate, and doctoral students who used the ChatGPT application. This research data was obtained through an instrument (in questionnaire format) which included several questions accordance with the variables in the UTAUT 2 model. The independent variables are Effort Expectancy-EE (X1), Performance Expectancy-PE (X2), Habit-H (X3), Facilitating Conditions-FC (X4), Hedonic Motivation-HM (X5), and NonJudgmental Expectancy-NE (X6); while the dependent variable is Behavioural Intention-BI (Y). The conceptual framework for testing between variables is presented in Figure 1 below:

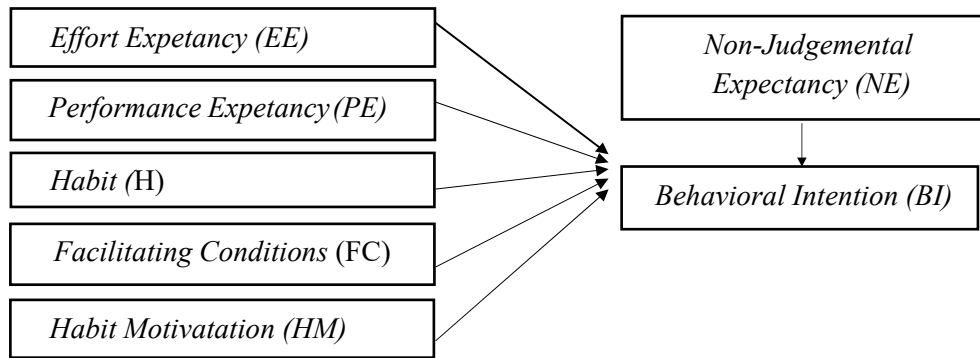


Figure 1. UTAUT 2 Conceptual Framework on ChatGPT Adoption among College Students for Academic Use

The ordinal data measurement technique in this research questionnaire instrument using a Likert scale with 5 points for strongly agree, 3 points for medium, and 1 point for strongly disagree. Overall data processing was analyzed through inferential statistical tests. The details of the questions and results were obtained through google form based on the UTAUT variables. The data in the questionnaire instrument contains indicators that can be measured based on the type of variable. The results of the Likert scale score processing were tested using Statistical Test on SPSS. This research begins with instrument testing (validity and reliability tests) so that the level of feasibility and consistency of the data used in measuring this research can be determined. After the test, then Classical Assumption Testing is carried out, through Multicollinearity Test, Normality Test and Heteroskadisity. Based on the number of variables that are more than one, Multiple Regression Analysis was used to test the hypothesis, for examples are t test, F test, and Determinance Coefficient. Data testing is carried out using the SPSS 25.0 application, then the data is analyzed and conclusions are determined.

3. RESULTS & DISCUSSION

The research results were obtained through survey techniques using an online questionnaire with the Google Form application, namely in the form of overall demographic profile data of respondents using student criteria. The total number of participants who successfully accomplished the survey, which was 101 respondents. Agree with the research objectives, the respondents studied were undergraduate (S1), postgraduate (S2) and doctoral (S3) students totaling 54 respondents. Table 2 displays data on the demographic profile of respondents based on the survey results :

Table 1 . Demographic Profile of Respondents

Respondent Profile	Total (n = 54); Number of respondents	Percentage
Criteria : Gender		
● Female	29	53,7 %

• Male	25	46,3 %
Criteria : Age		
• 15-20 years	8	14,8 %
• 21-30 years	42	77,8 %
• 30 Years and above	4	7,4 %
Education Level		
• S1	53	98,1 %
• S2 & S3	1	1,9 %

Source: Results of Respondent Questionnaire Filling (2024)

Based on the respondent's demographic profile data, the subjects of this study totaled 54 respondents who were students. The education level of students is mostly at the undergraduate level (S1) as many as 98.1% of people, while 1.8% of people are S2 and S3 students. Percentages by gender and age are also known, but this study focuses on the criteria for students as ChatGPT users. The UTAUT 2 model uses several variables that effect the acceptability and use of new technology.

An explanation of the six independent variables in this study is as follows: Variable X1, namely effort expectancy, shows the level of comfort connected with adopting technology by users or consumers. Variable X2, namely performance expectancy, which shows how much technology is adopted to provide benefits to users or consumers in using certain activities; Variable X3, namely Habit, shows the extent to which users or consumers automatically adopt technology; Variable X4, namely facilitating conditions, which shows the user's or consumer's perception of the facilities available and can practically support the adoption of a technology; Variable X5, namely hedonic motivation, which shows consumer pleasure obtained from adopting a technology; and Variable X6, namely Non-Judgmental Expectancy (NE). NE is a non-judgmental expectancy which indicates that the distance to which an individual feels that applying a system can remove their personal judgments and prejudices from others, so that a person can have reasons and suggestions as an alternative solution in using AI as needed. Some indicators that include Non-Judgmental Expectancy (NE) are I prefer to ask ChatGPT so as not to be judged by others; I prefer to ask ChaGPT to avoid embarrassment; and I don't feel confused when I ask ChatGPT. Behavioral Intention (BI) as the dependent variable (Y).

The initial test carried out in this test is the reliability and validity test of the questionnaire instrument which contains data on the research's dependent and independent variables. This test aims to prove the accuracy and consistency of instrument data in measurements which can affect further testing. The outcomes of evaluating the validity of research instruments applying SPSS 25.0 are revealed in the table bellow.

Table 2. Instrument Validity Testing Results

Variabel	Items	<i>Pearson Correlation</i>
BI (Y)	BI1	0,917
	BI2	0,931
	BI3	0,925
EE (X1)	EE1	0,836
	EE2	0,865
	EE3	0,887
PE (X2)	PE1	0,862
	PE2	0,914
	PE3	0,892
	PE4	0,716

Variabel	Items	Pearson Correlation
H (X3)	H1	0,890
	H2	0,893
	H3	0,918
FC (X4)	FC1	0,826
	FC2	0,869
HM (X5)	HM1	0,908
	HM2	0,967
	HM3	0,912
NE (X6)	NE1	0,972
	NE2	0,942
	NE3	0,828

Source: Results of SPSS 25.0 Data Analysis (2024)

Testing the validity of the instrument applies a significance level of 0.05 to find out the r table with the number $n = 54$. With these total respondents, the r table achieved is 0.268. If $r_{\text{count}} > r_{\text{table}}$ and the Sig. (2 tailed) value is less than 0.05, the test provisions are considered valid. Each study variable's validity test findings demonstrate that r_{count} (Pearson Correlation) $> r_{\text{table}}$, with a Sig. (2 tailed) = 0.000; so, the validity of the complete data instrument is affirmed. Reliability testing comes next if the validity test of the instrument has been deemed valid. The purpose of this test is to evaluate the questionnaire's consistency, which serves as a construct or variable indicator. If the Alpha Cronbach score is more than 0.60, the test provisions are considered credible. Table 4 below provides a summary of the data instrument reliability testing findings for each variable.

Table 4 . Reliability Test Results

Variabel	N	Alpha Cronbach's	Test Result Description
<i>Behavioral Intention (BI)</i>	3	0,913	Reliabel
<i>Effort Expectancy (EE)</i>	3	0,818	Reliabel
<i>Performance Expectancy (PE)</i>	4	0,865	Reliabel
<i>Habit (H)</i>	4	0,878	Reliabel
<i>Facilitating Condition (FC)</i>	2	0,606	Reliabel
<i>Hedonic Motivation (HM)</i>	3	0,920	Reliabel
<i>Nonjudgmental Expectancy (NE)</i>	3	0,903	Reliabel

Source: SPSS 25.0 Data Analysis Results

The outcome of testing the reliability of data instruments for all variables show a Alpha Cronbach's value > 0.60 , therefore the test results are believed to be reliable. Based on the results of the reliability and validity tests in tables 3 and 4, the questionnaire submitted to respondents is a suitable measuring tool for solving problems and the results are consistent and suitable for use. The next test is the Classical Assumption Test as a Prerequisite Test to test the normality and homogeneity of the research data. The outcome of the data normality prerequisite test of 7 (seven) variables applying the One-Sample Kolmogorov-Smirnov Test on SPSS are in Table 5 as follows:

Table 5. Normality Test with One-Sample Kolmogorov-Smirnov Test

		BI	EE	PE	H	FC	HM	N.E
N (number of sample = 54)								
Normal Parameters ^{a,b}	Average /Mean	10.5741	11.7407	15.4815	9.6296	7.5185	11.3148	10.0926
	Std. Deviation	2.92421	2.65774	3.21987	3.06715	1.72376	2.44042	3.34928
Most Extreme Differences	Absolute	.152	.149	.123	.192	.137	.162	.123
	Positive	.152	.110	.121	.192	.137	.162	.118
	Negative	-.120	-.149	-.123	-.108	-.120	-.120	-.123
Test Statistic		.152	.149	.123	.192	.137	.162	.123
Asymp. Sig. (2-tailed)		.003 ^c	.004 ^c	.039 ^c	.000 ^c	.013 ^c	.001 ^c	.041 ^c

Source: Results of SPSS 25.0 Data Analysis (2024)

If the significance value (Asymptotic Sig. (2-tailed)) > 0.05, the provisions for the Normality Test are deemed to be regularly distributed. The results of the One-Sample K-S Test used to test for normality in Table 5 show that all variables have significance values (Asymp. Sig. (2-tailed)) less than 0.05, indicating that the data for each variable is not normally distributed. The multicollinearity test comes next, and its goal is to determine whether or not there is a significant connection between the independent variables in a regression model. Multicollinearity results in low regression coefficients and large regression standard errors, making it statistically insignificant to test each independent variable. To establish whether there is multicollinearity, it can be observed at the VIF (Variance Inflation Factor) and tolerance value. If the tolerance value is more than 0.1 (10%), the regression model is free from multicollinearity, while the VIF value < 10 reveals the regression model is free of multicollinearity. The table below displays the results of the multicollinearity test.

Table 6. Multicollinearity Coefficients Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.184	1.379		.133	.895		
EE	.103	.151	.094	.686	.496	.352	2.841
PE	.322	.132	.355	2.446	.018	.313	3.194
H	.498	.125	.522	3.982	.000	.383	2.609
FC	-.125	.182	-.073	-.682	.498	.570	1.755
HM	.167	.163	.139	1.024	.311	.356	2.810
N.E	-.155	.105	-.177	-1.474	.147	.457	2.188

a. Dependent Variable: BI

Source: Results of SPSS 25.0 Data Analysis (2024)

Referring to the tolerance and VIF values in the test table, all variables have a VIF value < 10 and a tolerance value > 0.1 (10%), therefore revealing that the regression model does not have multicollinearity. The next test is the test of heteroscedasticity which is used to check whether there is uncertainty in the variance between one observation residue and another in the regression model. It is called heteroscedasticity, when there are different

variances. A scatter plot of the predicted value of the dependent variable SRESID with the residual ZPRED error can be tested to see if the multiple linear regression model exhibits heteroscedasticity. If there is no definite pattern and there is no difference below and above zero on the Y axis, then it is free from heteroscedasticity. A model that does not show heteroscedasticity is a good model (Ghozali, 2016). The outcome of the heteroscedasticity test on the scatterplot graphical image show that the UTAUT multiple linear regression model does not experience heteroscedasticity, including:

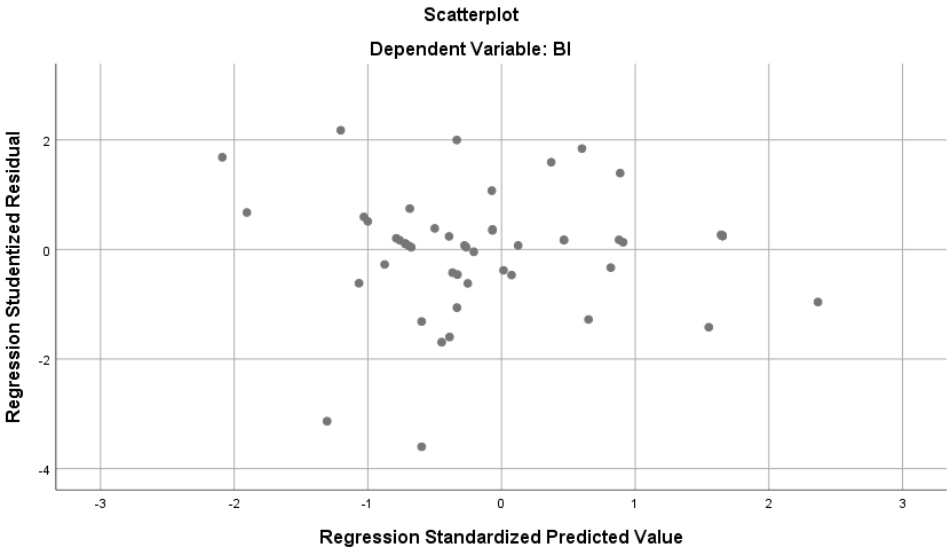


Figure 2. Scatterplot Graph of UTAUT Multiple Linear Regression Model

Further data testing is hypothesis testing with multiple regression analysis. The dependent variable in this research is behavioral intention to use ChatGPT, while the independent variable consists of six constructs. The coefficient value (B value) of each variable in Table 6 can be used to create the UTAUT 2 variable multiple regression analysis equation. This yields the following equation :

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 \dots\dots\dots (1)$$

$$Y = 0.184 + 0.103X_1 + 0.322X_2 + 0.498X_3 - 0.125X_4 + 0.167X_5 - 0.155X_6 \dots\dots\dots (2)$$

Description :

- Y = Behavioral Intention (BI)
- X1 = Effort Expectancy (EE)
- X2 = Performance Expectancy (PE)
- X3 = Habit (H)
- X4 = Facilitating Condition (FC)
- X5 = Hedonic Motivation (HM)
- X6 = Nonjudgmental Expectancy (NE)

Referring to the regression equation, the multiple linear regression test results in the UTAUT 2 model reveal that the value of the dependent variable (Y) is influenced by a combination of various independent variables (X1 to X6). The magnitude of the B coefficient value (Table 6.) on each variable shows the magnitude of the influence of variable X on Y. If the B coefficient value is positive, there is a direct relationship between

X and Y, but if it is negative, the correlation is inversely proportional or low. The results indicate that Effort Expectancy (X1), Performance Expectancy (X2), Habit (X3), and Hedonic Motivation (X5) have a positive relationship with Behavioural Intention (Y); while Facilitating Conditions (X4) and Nonjudgmental Expectancy (X6) have a negative correlation with Behavioural Intention (Y). Nonjudgmental Expectancy (X6), which is an additional construct in the UTAUT 2 model, has an inversely proportional relationship, so that if students have a low level of non-judgmental expectations of themselves (not afraid of being judged, not embarrassed, not feeling confused when using chatGPT), then Behavioural Intention in continuing to use chatGPT in the future will be high and may become a routine user in finding information for their studies.

The t test, F-test, and coefficient of determination can be used in data analysis to show how the independent variable affects the dependent variable, or to show whether two or more independent variables (X) have an influence on the dependent variable (Y). The t-test is used to determine if the independent variable (X) has an effect on the dependent variable (Y) that is partial or totally present. The t-value test results are shown in the following SPSS data analysis table. If the Sig value is less than 0.05 or the tcount is greater than the table, then variable X has an effect on Y; otherwise, it has no effect on Y. The t-table value = $t(a/n-k-1) \Rightarrow t(0.025; (54-6-1))$, then the t-table (0.025;47) is 1.697. The results of these calculations then concluded the hypothesis test.

Table 7. UTAUT Variable t Test Results

Variable Model	T	Sig.
1	0.133	0.895
EE (X1)	0.686	0.496
PE (X2)	2.446	0.018
H (X3)	3.982	0.000
FC (X4)	-.682	0.498
HM (X5)	1.024	0.311
N.E (X6)	-1.474	0.147

Source: Results of SPSS 25.0 Data Analysis (2024)

Referring to the calculation results in Table 7, the results of hypothesis testing using the t test are as follows:

- H1 is rejected : The Effort Expectancy-EE (X1) variable has no discernible effect on the Behavioural Intention (Y) variable.
- H2 accepted : The Behavioural Intention (Y) variable is significantly influenced by the Performance Expectancy-PE (X2) variable.
- H3 accepted : The variable Behavioural Intention (Y) is significantly influenced by the variable Habit-H (X3).
- H4 is rejected : The Behavioural Intention variable (Y) is not significantly influenced by the Facilitating Conditions-FC (X4) variable.
- H5 is rejected : The variables Behavioural Intention (Y) and Hedonic Motivation-HM (X5) do not significantly affect one another.

H6 is rejected : The Non-Judgmental Expectancy-NE (X6) variable has no discernible effect on the Behavioural Intention (Y) variable.

Testing this hypothesis yielded the following results: the Behavioural Intention variable is significantly influenced by the Performance Expectancy (PE) and Habit (H) variables; on the other hand, the Behavioural Intention variable is not significantly influenced by the additional variables in the UTAUT2 model, Effort Expectancy (EE), Facilitating Conditions (FC), Hedonic Motivation (HM), and especially Non-Judgmental Expectancy (NE).

The effect of the Performance Expectancy (PE) and Habit (H) variables on the Behavioral Intention (BI) variable reveals that in adopting ChatGPT, students assess that this AI technology in the form of ChatGPT can give advantages to themselves as users in certain activities. Students believe that ChatGPT can be useful in studies, increase important opportunities in studies, complete assignments and projects faster, and increase productivity in studies. Other research related to the results of this study is about student perceptions of the use of ChatGPT; which shows that the ChatGPT platform is considered to provide good quality information, effectiveness in learning, information about learning resources, teaching materials and positive media; although students must analyze the information they get back to fit more credible and accurate references for their studies (Shifa, 2023). In addition, according to Ratnawati, et al (2023), students can understand Mason's theory well and can use ChatGPT to deepen their understanding. As a result, it appears that behavioural intentions are significantly influenced by performance expectations.

The Habit variable also shows the extent to which users or consumers automatically adopt technology, such as the need to use chatGPT as a necessity to obtain information, so that this technology becomes a natural thing used by students when needed, especially in study or task completion. Habit is considered to have a significant affect on Behavioural Intentions. This is thought to be because students have a habit of finding and exploring new information through digital technology which is currently easily accessible. Research related to students' habits of using ChatGPT in higher education has also been conducted by various researchers. One of them is according to the results of Strzelecki's research (2024) on students at the State University of Poland; which shows that habits have the most significant impact on college student's Behavioral Intentions to use ChatGPT and performance expectations and hedonic motivation also influence Behavioral Intention.

The habit of using ChatGPT can also have both negative and positive impacts. As the results of study by Sullivan, et al (2023), showed that the use of ChatGPT has implications for student opportunities and access to using ChatGPT so that it is expected to increase the quality of student learning in higher education. However, there are concerns in the public's assessment of academic integrity when using information through ChatGPT because each AI technology has limitations and weaknesses in its output, so academics must adjust

appropriate learning and assessment practices to embrace the current conditions of free use of AI.

In addition to Performance Expectancy and Habit, there are several other variables that were tested on the Behavioural Intention of using ChatGPT. The test results on the other four variables did not show a significant affect on variabel of Behavioural Intention, such as the ease of using ChatGPT (Effort Expectancy); ChatGPT's work system that is compatible with current technology (Facilitating Conditions); pleasant conditions when using ChatGPT (Hedonic Motivation); and the expectation of not judging oneself if using or not using ChatGPT technology (Non-Judgmental Expectancy). The Non-Judgmental Expectancy variable as an addition to the UTAUT 2 model in this study did not have a significant effect. Indirectly, it shows that the purpose of using ChatGPT is allegedly not because of feelings of fear of being judged, feeling embarrassed and confused, but indeed as needed.

Various UTAUT 2 studies have been conducted on various user subjects, environmental and social conditions of users, and various types of digital technology. The average research results on digital technology or AI show that the Habit factor has a significant affect on Behavioural Intention. The studies results related to this study, namely according to Pasaribu (2021) the Covid-19 pandemic variable in moderating the UTAUT2 factors is not significantly proven with the Behavioral Intention of Mobile Banking Adoption by students; then another study was conducted by Pasaribu in 2022; shows that motivation, habit and the COVID-19 pandemic are factors that have a significant affect on Behavioural Intention to use mobile banking among students. In addition, according to Pasaribu & Rabbani (2022), Effort Expectancy, Social Influence, Hedonic Motivation, Price Value and Habit have a significant effect on Behavioural Intention to use digital banking (mobile and internet banking); however, Effort expectancy, Performance Expectancy factor and Facilitating conditions have no significant affect. Covid-19 pandemic conditions, gender and educational background play a role in moderating these variables.

Other research related to the use of AI, namely, according to Alfarobi, et al (2024), the Habit factor remains more dominant in significantly influencing Behavior Intention and Usage Behavior in general users of AI technology in the form of chatGPT; and there are other factors that do not directly affect BI significantly, such as Experience and Enjoyment, Helpfulness of Machine, Future Consequences, Perceived Value, Perceived Ease of Use, and Social Influence. So that each acceptance and use of digital technology shows the existence of different factors that affect Behavioural Intention, but Habit as a variable that affects a lot. This measurement is close to the results of the development and refinement of the UTAUT theory into UTAUT 2 in research conducted by Venkatesh, Thong and Xu (2012); where there are 3 other constructs that can affect technology acceptance or Behavioral Intention, namely Price Value, Hedonic Motivation, and Habit; while the use

of technology systems (Use Behavioral) can be established by Facilitating Conditions and Habit.

To determine whether or not the independent variable (X) has a simultaneous (collective) effect on the dependent variable (Y), the F test for the UTAUT variable is the next step. The results of the Ftest conducted with SPSS 25.0 are shown below. According to the F test's rules, if either $F_{table} < F_{count}$ or $Sig \text{ value} < 0.05$, then variable X concurrently affects Y. If $F_{table} > F_{count}$ or the sig value is greater than 0.05, then variable X does not simultaneously affect variable Y. The value of F ($k; n-k$) \Rightarrow F (6; (54-6)) \Rightarrow F table (5; 48) = 2.57 is the F-table value. The following are the outcomes of the F test computation using SPSS:

Table 8. F Test Results on ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.	Test Result Description
1	Regression	312.766	6	52.128	17.446	.000 ^b	H7 accepted
	Residual	140.437	47	2.988			
	Total	453.204	53				

a. Dependent Variable: BI

b. Predictors: (Constant), N.E, FC, H, EE, HM, PE

Source: Results of SPSS 25.0 Data Analysis (2024)

Referring to the Fcount value (17.446), it is known that the value of $F_{count} > F_{table}$ (2.57), and the Sig value (0.000) < 0.05 ; so concluded that H7 is accepted, which shows that there is a simultaneous influence between the variables Effort Expectancy-EE (X1), Performance Expectancy-PE (X2), Habit-H (X3), Facilitating Conditions-FC (X4), Hedonic Motivation-HM (X5), and NonJudgmental Expectancy-NE (X6) on the Behavioral Intention (Y) variable. The Coefficient of Determination value test comes next. The purpose of this test is to demonstrate the percentage (%) change in the dependent variable (Y) that results from the independent variable (X). The outcomes of utilising SPSS 25.0 to test the Coefficient of Determination are as follows :

Table 9. Test Results of the Coefficient of Determination Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.831 ^a	.690	.651	1.72859

a. Predictors: (Constant), N.E, FC, H, EE, HM, PE

b. Dependent Variable: BI

Source: Results of SPSS 25.0 Data Analysis (2024)

Referring to the Model Summary Output, an R Square comes out to be 0.690, which reveals that the influence of all variables (X1, X2, X3, X4, X5, and X6) simultaneously on variable Y is 69.0%. Thus, concluded that the variables Effort Expectancy-EE (X1), Performance Expectancy-PE (X2), Habit-H (X3), Facilitating Conditions-FC (X4), Hedonic Motivation-

HM (X5), and NonJudgmental Expectancy-NE (X6) simultaneously influence 69.0% of the Behavioral Intention (Y) variable. A total of 31.0% can be affected by other factors not applied in this UTAUT 2 model.

4. CONCLUSION & SUGGESTION

The results reveal that variabel of Performance Expectancy (PE) and Habit (H) had a significant influence on student's Behavioral Intention in accepting and using ChatGPT technology as a new technology for academic use. However, these two variables along with other variables such as Effort Expectancy, Facilitating Conditions, Hedonic Motivation, and NonJudgmental Expectancy still have a simultaneous influence on Behavioral Intention. The additional Nonjudgmental Expectancy variable in the UTAUT 2 model has a negative correlation and has no significant effect in predicting students' behavioral intentions in adopting ChatGPT.

There are other influences that can determine the magnitude of behavioral intention towards ChatGPT adoption in academic use. Consequently, understanding the impact of the variables in the UTAUT 2 model can be a motivation in the development and acceptance of new technologies such as ChatGPT. ChatGPT is expected to be an alternative solution to assist the effective and efficient student learning process according to academic needs. Further research on the UTAUT model and evaluation in the acceptability and use of new technology in other fields can be researched as suggestions and input, so that technological developments can provide sustainable benefits..

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